

Work Order ID 82684

\*82684\*

Page 1

April-04-12 1:58:20 PM

Item ID: D350-636-012

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Skidtube RH

Stop \*NS2\*

Start Date: 04/04/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/04/05 Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2750	F								
D3492	C								

100

0.00

\*100\*

DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy blue file and type labels per PPP D350-636-012 CHG 006

JB 5/21/05/02

MLJ 12-5-2

82684 RH

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Item ID: D350-636-012

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Skidtube RH

Stop \*NS2\*

Start Date: 04/04/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

\*110\*

Skidtubes

Skidtubes

0.00

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. \*\*\*SECOND SIDE\*\*\*

8-Open up holes for Detail "K" to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail L to 0.500" (8 holes per side)

9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

*Handwritten signature* 1204-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

Work Order ID 82684

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Item ID: D350-636-012

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\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube RH

Start Date: 04/04/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left  
from bending as per QSI 004  
A/R Aluminum Rod batch: *M120854* *SE 12/04/20*

12-Grind welds flush as per Dwg D2750 *12-04-23*

120

QC10- Inspect visual per QSI004- ground welds 0.00

\*120\*

QC

Memo

0.00

*Sizley*

Quality Control

130

QC5- Inspect part completeness to step on W/O 0.00

\*130\*

QC

Memo

0.00

*Sizley*

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**\*82684\***

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**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 04/04/2012    **Start Qty:** 1.00    **\*1\***

**Cust Item ID:**

**Required Date:** 18/04/2012      **Req'd Qty:** 1.00      **\* 1 \***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

**Insp.  
Stamp**

Chemical Conversion Coat per QSI005 4.1

0.00

**\*140\***

HandFinish

## Memo

0.00

## Hand Finishing

QC7-Inspect Chemical Conversion Coat

0.00

**\*150\***

QC

## Memo

0.00

## Quality Control

1 CF 12-4-23

① SAD 12-04-85

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Item ID: D350-636-012      Accept      **\*N9000040100\***      Setup Start **\*NS1\***  
 Revision ID:      Stop **\*NS2\***  
 Item Name: Skidtube RH  
 Start Date: 04/04/2012      Start Qty: 1.00      **\*1\***      Cust Item ID:  
 Required Date: 18/04/2012      Req'd Qty: 1.00      **\*1\***      Customer:  
 Reference:

Approvals:      Process Plan:      Date:      Tooling:      Date:      Run Start **\*NR1\***  
 QC:      Date:      SPC (Y/N):      Date:      Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 <b>*160*</b> Skidtubes Skidtubes	Skidtubes  Memo 1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750. 2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750. 3-Open float holes to .500" (4 per Side) 4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9) 5-Deburr and blow out all chips from inside of tube 6-Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015 A/R Sikaflex-291 batch: <u>M121221</u> exp. date: <u>13-1-4</u> 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9) A/R Aluminum Rod batch: <u>M120854</u> 9- At section AP-AP drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750 11-Spot face ground handling holes section (total of 4 places per side) as per	0.00  0.00							

1 CF 12-4-26

CF 12-4-26

86 12-04-30

SAD 12-04-30  
CC

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No **DQA:** \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)					
DATE	STEP	Description of NC Section A	Corrective Action Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng			

**NOTE:** Date & initial all entries

**Work Order ID 82684****\*82684\***

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Item ID: D350-636-012

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube RH

Start Date: 04/04/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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dwg D2750

12-Debur holes



170

QC10- Inspect visual per QSI004- ground welds

0.00

**\*170\***

Sc 26561

QC

Memo

0.00

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00

**\*180\***

Sc 26561

QC

Memo

0.00

Quality Control

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)					
DATE	STEP	Description of NC Section A	Corrective Action Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng			

NOTE: Date & initial all entries

# WorkOrder ID 82684

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April-04-12 1:58:20 PM

Item ID: D350-636-012

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Skidtube RH

Stop \*NS2\*

Start Date: 04/04/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

Pressure Wash per QSI005 4.3

0.00

\*190\*

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

216 12-5-1

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

\*200\*

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

1:00  
320 OF  
1:30

IX 12/05/01

210

QC3- Inspect Part Finish

0.00

\*210\*

QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

11317 4 12/05/01

W121134

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# WorkOrder ID 82684

**\*82684\***

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April-04-12 1:58:20 PM

Item ID: D350-636-012 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Skidtube RH  
Start Date: 04/04/2012 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 18/04/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	HandFinishing	0.00							
<b>*230*</b>									
HandFinish	Memo	0.00							
Hand Finishing	1-Install inserts as per dwg D2750								
	2-Inspect for Foreign Objects								
	3-Spray inside of tube with "LPS-3" batch: <u>N/A</u>								
	4-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: <u>121221</u> EXP DATE: <u>13/01</u>								
	5-assemble o-ring to plug as per dwg D3492 and apply o-ring lube A/R 55-o-ring lube batch: <u>110349</u>								
	6-Coat all exposed fasteners with "LPS Procyon" batch: <u>114546</u>								

1 0 (2P) 12/05/02  
RH

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*82684\***

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Item ID: D350-636-012

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Skidtube RH

Stop **\*NS2\***

Start Date: 04/04/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240 <b>*240*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00	S 12/05/02						
250 <b>*250*</b> Packaging Packaging	Pick Kit  Memo	0.00 0.00				1			12/05/02 JB
260 <b>*260*</b> QC Quality Control	QC4- 100% Inspect kits for completeness  Memo	0.00 0.00	S 12/05/02			(X)			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube RH

Start Date: 04/04/2012 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 18/04/2012 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270		0.00							
*270*	Packaging								12/5/30
Packaging	Memo	0.00							
Packaging	Package as per PPP D350-636-012								
									Rev I
280		0.00							
*280*	QC21- Final Inspection - Work Order Release								12/5/17
QC	Memo	0.00							
Quality Control									

12-05-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

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Work Order ID: 82684

**\*82684\***

Parent Item: D350-636-012

**\*D350-636-012\***

Parent Item Name: Skidtube RH

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

## Comments:

IPP Rev:102.09.25Rearranged procedure stepsKJ  
 IPP Rev:J 06-03-29 As per Rev D EC  
 IPP Rev:K 06-07.13 As per dsi9343 EC  
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC  
 IPP Rev:M 08-04-22 update steps 4,13 DD verified by:EC  
 IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec IPP Rev:O  
 10.06.22 revise seq110 DD verf:EC IPP Rev:P 10.10.01 as  
 per IIN revH DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2600-3-BENT

Manufactured No

110

Each

15.0000

1

1

**\*D2600-3-BENT\***

Extrusion Bent

\*\*

①

MT

12-04-19

B83305

### Location

### Loc Qty

### Loc Code

LG

15

66875

7

73253

1

75021

1

75022

1

75023

1

81330

4

D2744

Manufactured No

110

Each

46.0000

1

1

**\*D2744\***

Cap

\*\*

BE 12/04/20

### Location

### Loc Qty

### Loc Code

LG002

46

62715

1

70881

3

78900

42

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**Picklist Print**

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Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

**\*82684\*****\*D350-636-012\***

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2739

Manufactured No

160

Each

5.0000

1

1

**\*D2739\***

350 I Beam

\*\*

1

CF 12-4-26

B83446

LocationLoc QtyLoc Code

LG

5

72155

1

81508

1

82122

3

D2743

Manufactured No

160

Each

346.0000

8

8

**\*D2743\***

Crossbolt Spacer

\*\*

BE 12/04/27

B 81965 \*8

LocationLoc QtyLoc Code

LG001

346

67766

4

68251

3

73403

64

74445

1

78603

2

79517

62

D3490-3

Manufactured No

160

Each

90.0000

4

4

**\*D3490-3\***

Cross Bolt Spacer

\*\*

BE 12/04/27

LocationLoc QtyLoc Code

LG

88

82016

88

LG001

2

78800

2

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



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Page 3

Work Order ID: 82684

**\*82684\***

Parent Item: D350-636-012

**\*D350-636-012\***

Parent Item Name: Skidtube RH

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3490-1

Manufactured No

160

Each

124.0000

4

4

**\*D3490-1\***

Cross Bolt Spacer

\*\*

BE12/04/27

Location

Loc Qty

Loc Code

LG

115

81976

115

LG001

9

62450

2

74875

4

77042

3

4

D3631-1

Manufactured No

230

Each

243.0000

8

8

**\*D3631-1\***

Washer

\*\*

8 (2P) 12/05/02

Location

Loc Qty

Loc Code

FG

100

81874 ✓

100

ST072

143

68062

2

75548

141

D3791-1

Manufactured No

230

Each

9.0000

1

1

**\*D3791-1\***

Wearplate

\*\*

1 (2P) 12/05/02

Location

Loc Qty

Loc Code

FP002

9

62239

2

78897

7

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Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 4

Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

**\*82684\***

**\*D350-636-012\***

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3793-3

Manufactured No

230

Each

30.0000

1

1

**\*D3793-3\***

Wearshoe

\*\*

1 *SP* 14/05/02

Location

Loc Qty

Loc Code

FP001

23

80434 ✓

11

82166

12

FP002

7

78935

7

MS21043-6

Purchased No

230

Each

773.0000

4

4

**\*MS21043-6\***

NUT

\*\*

4 *SP* 12/05/02

Location

Loc Qty

Loc Code

FG

20

103693

20

ST301

753

112314

47

117887

6

118384 ✓

200

120308

500

D3794-1

Manufactured No

230

Each

16.0000

1

1

**\*D3794-1\***

Gasket

\*\*

1 *SP* 12/05/02

Location

Loc Qty

Loc Code

FP002

16

75042

4

80435

12

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# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 5

Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

\*82684\*

\*D350-636-012\*

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased

No

230

Each

275.0000

8

8

\*NAS1611-010\*

O-RING

\*\*

8

JB

12/05/02

Location

Loc Qty

Loc Code

FP

50

110915

0

120770

50

FP001

225

110915

14

117460

8

118077

1

118612

3

119438

47

120986

50

121166

52

121259 ✓

50

D2741

Manufactured

No

250

Each

67.0000

1

1

✓

\*D2741\*

Blade, 350 Skidtube

\*\*

JB

12/05/02

Location

Loc Qty

Loc Code

ST

-10

ST466

77

71856

1

76984

26

79516

40

79516

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Page 6

Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

**\*82684\***

**\*D350-636-012\***

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1515H3L

Purchased

No

230

Each

198.0000

4

4

**\*NAS1515H3I \***

WASHER

\*\*

4 (28) 12/05/02

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

158

118686

3

119438

1

120072

8

120360 ✓

96

121243 ✓

50

NAS1611-013

Purchased

No

230

Each

250.0000

8

8

**\*NAS1611-013\***

O-RING

\*\*

8 (28) 12/05/01

Location

Loc Qty

Loc Code

FP001

250

116582

5

117291

2

117887

53

119623

36

120910

4

121166

100

121259

50

121584 ✓

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



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Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

\*82684\*

\*D350-636-012\*

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

Purchased

No

230

Each

517.0000

4

4

\*AN3C6A\*

BOLT

\*\*

4 (AP) 12/05/02

Location

Loc Qty

Loc Code

FP001

1

111982

1

ST351

516

111982

2

116419

23

116549

2

116704

12

117619

10

117688

1

117872

5

118422

13

119449

21

120423

27

120693 ✓

400

NAS1149C0832R

Purchased

No

230

Each

295.0000

1

1

\*NAS1149C0832R\*

WASHER

\*\*

1 (AP) 12/05/02

Location

Loc Qty

Loc Code

ST297

295

114915 ✓

295

D3536-25

Manufactured

No

230

Each

22.0000

1

1

\*D3536-25\*

Gasket

\*\*

1 (AP) 12/05/02

Location

Loc Qty

Loc Code

FP

14

81342 ✓

14

FP002

8

78902

8

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

\*82684\*

\*D350-636-012\*

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No

230

Each

23.0000

1

1

\*D3794-3\*

Gasket

\*\*

1

(28)

14/05/02

Location

Loc Qty

Loc Code

FP002

23

74530

2

80436 ✓

21

AN3C5A

Purchased

No

230

Each

1,602.000

34

34

\*AN3C5A\*

Bolt

\*\*

34

(28)

14/05/02

Location

Loc Qty

Loc Code

FP001

7

115835

7

ST350

1595

116419

28

117343

13

117764

7

117872

2

119749

23

120423

522

1210168

500

121255

500

D3537-1

Manufactured

No

230

Each

26.0000

3

3

\*D3537-1\*

Wearpad

\*\*

3

(28)

12/05/02

Location

Loc Qty

Loc Code

FG

10

79833

10

FP002

16

69817

5

80337

11

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

\*82684\*

\*D350-636-012\*

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-25

Manufactured No

230

Each

22.0000

1

1

\*D3535-25\*

Wearshoe

\*\*

1

12/05/02

Location

Loc Qty

Loc Code

FP001

82156✓

22

62233

1

80331

10

81357

11

D3492-3

Manufactured No

230

Each

1.0000

8

8

\*D3492-3\*

Plug

\*\*

8

12/05/02

Location

Loc Qty

Loc Code

FP-A

83099✓

1

78600

1

AN960C10L

\* NAS1149C0332✓ Purchased

No

230

Each

0.0000

38

38

\*AN960C10I \*

washer

\*\*

38

12/05/02

D3488-042

Manufactured No

230

Each

16.0000

1

1

\*D3488-042\*

Blade Fitting Assembly, RH

\*\*

1

12/05/02

Location

Loc Qty

Loc Code

FP002

16

62003

1

75068✓

8

77015

7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Work Order ID: 82684

**\*82684\***

Parent Item: D350-636-012

**\*D350-636-012\***

Parent Item Name: Skidtube RH

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

230

Each

2,477.000

38

38

**\*AI S4-1032-225\***

Insert

\*\*

38

*SP*

12/05/02

Location

Loc Qty

Loc Code

ST281

2454

108696

146

110768

62

118386

55

118966

68

120671

123

121269 ✓

2000

ST282

23

120410

10

120451

13

D3492-1

Manufactured

No

230

Each

46.0000

8

8

**\*D3492-1\***

Plug

\*\*

8

*SP*

12/05/02

Location

Loc Qty

Loc Code

FP002

46

69531

8

74444

2

76235

4

77037

32

D3793-1

Manufactured

No

230

Each

26.0000

1

1

**\*D3793-1\***

Wearshoe

\*\*

1

*SP*

12/05/02

Location

Loc Qty

Loc Code

FP001

26

78901

10

82171 ✓

16

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Work Order ID: 82684

**\*82684\***

Parent Item: D350-636-012

**\*D350-636-012\***

Parent Item Name: Skidtube RH

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

AN8C35A

Purchased

No

230

Each

56.0000

1

1

**\*AN8C35A\***

BOLT

\*\*

1 (20) 12/05/02

Location

Loc Qty

Loc Code

FP002

55

115960

1

117834

8

118286 ✓

46

ST346

1

114442

0

115188

0

115960

1

MS21083C8

Purchased

No

230

Each

115.0000

1

1

**\*MS21083C8\***

NUT

\*\*

1 (20) 12/05/02

Location

Loc Qty

Loc Code

304

50

121185 ✓

50

FP002

1

115884

1

ST303

6

115884

0

118077

1

119309

2

119436

1

119638

2

ST304

58

120142

8

120731

25

121011

25

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 82684

**\*82684\***

Parent Item: D350-636-012

**\*D350-636-012\***

Parent Item Name: Skidtube RH

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2745

Manufactured No

230

Each

64.0000

8

8

**\*D2745\***

Bushing

\*\*

8 (2P) 12/05/02

Location

Loc Qty

Loc Code

FP

83260 ✓

62

79518

62

FP001

2

69529

1

76142

1

AN6C44A

Purchased No

230

Each

175.0000

4

4

**\*AN6C44A\***

BOLT

\*\*

4 (2P) 12/05/02

Location

Loc Qty

Loc Code

FG

2

103964

2

ST343

173

120143

25

120465

27

120641

1

121013

20

121167 ✓

100

D3532-1

Manufactured No

250

Each

55.0000

2

2 ✓

**\*D3532-1\***

Spacer

\*\*

JB 12/05/02

Location

Loc Qty

Loc Code

ST053

55

78839

31

82041

24

82041

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

**\*82684\***

**\*D350-636-012\***

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

250

Each

115.0000

2

2

✓

**\*MS21083C8\***

NUT

\*\*

121524 JB

Location

Loc Qty

Loc Code

304

50

121185

50

FP002

1

115884

1

ST303

6

115884

0

118077

1

119309

2

119436

1

119638

2

ST304

58

120142

8

120731

25

121011

25

NAS1149D0863J

Purchased

No

250

Each

219.0000

2

2

✓

**\*NAS1149D0863.J\***

WASHER

\*\*

JB 12/05/02

Location

Loc Qty

Loc Code

ST298

219

118078

36

119307

83

120308

100

119307

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Work Order ID: 82684

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

\*82684\*

\*D350-636-012\*

Start Date: 04/04/2012

Required Date: 18/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3493-1

Manufactured No

250

Each

54.0000

2

2

\*\*

\*D3493-1\*

Washer

Location

Loc Qty

Loc Code

ST050

54

70697

2

77573

12

78835

40

78835

Purchased

No

250

Each

79.0000

2

2

\*\*

AN8C21A

\*AN8C21A\*

BOLT

Location

Loc Qty

Loc Code

ST343

79

118758

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~~121167~~

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

# GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:  
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.  
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ( $\phi 0.297$ ) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:  
MINIMUM YIELD TENSILE STRENGTH = 35 KSI  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.  
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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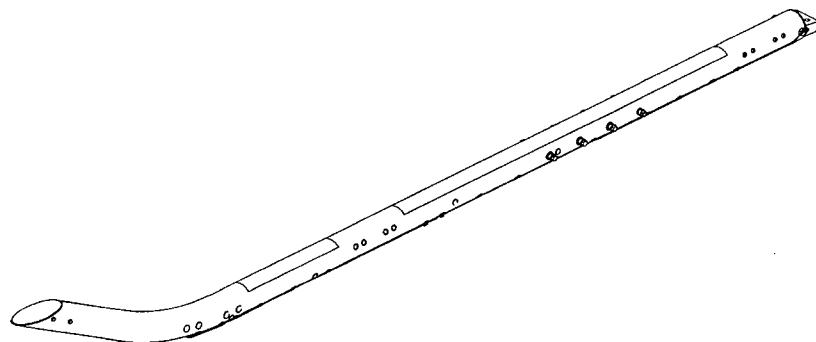
F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.16		

DART AEROSPACE USA, INC.  
PORT HADLOCK, WA

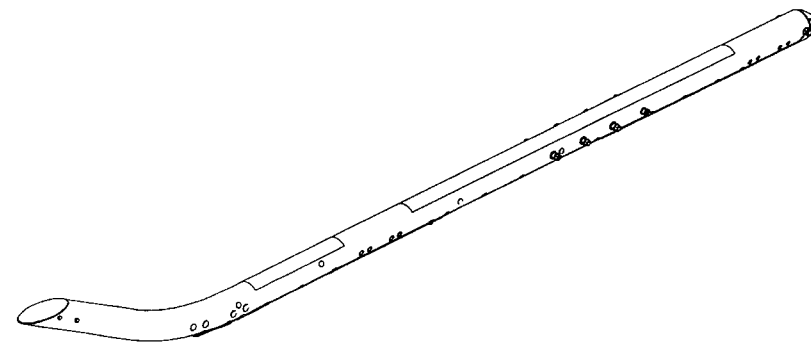
DRAWING NO. **D2750** REV. F  
SHEET 1 OF 11  
TITLE **350 SKIDTUBE ASSEMBLY** SCALE NTS

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D2750-041 350 SKIDTUBE ASSEMBLY, LH

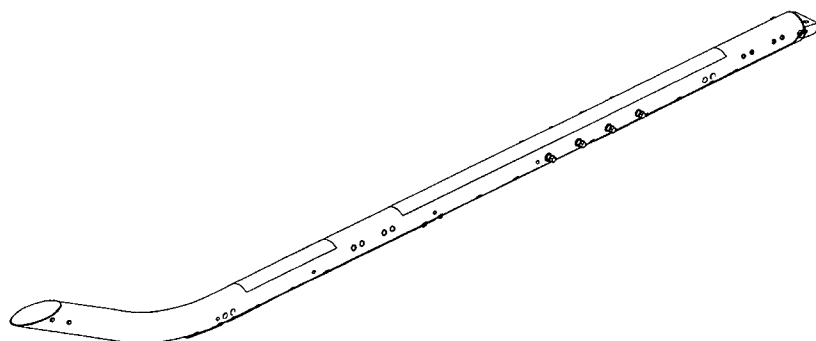


D2750-042 350 SKIDTUBE ASSEMBLY, RH

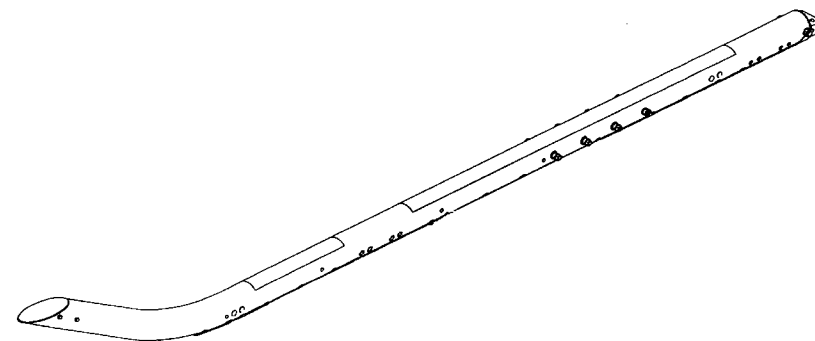
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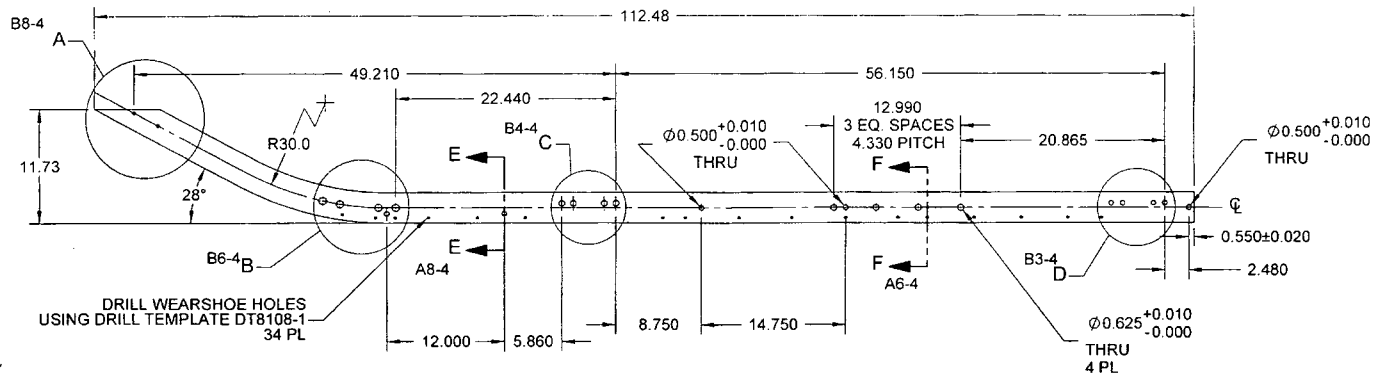
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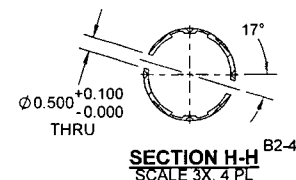
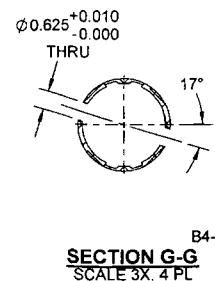
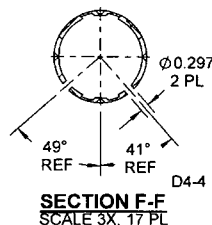
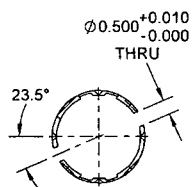
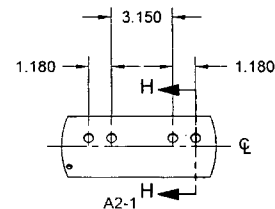
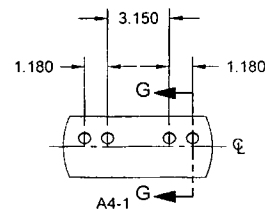
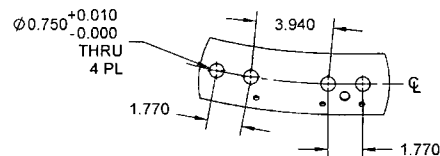
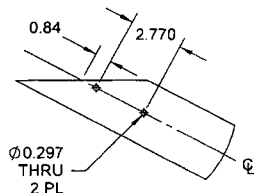
D2750-044 350 SKIDTUBE ASSEMBLY, RH

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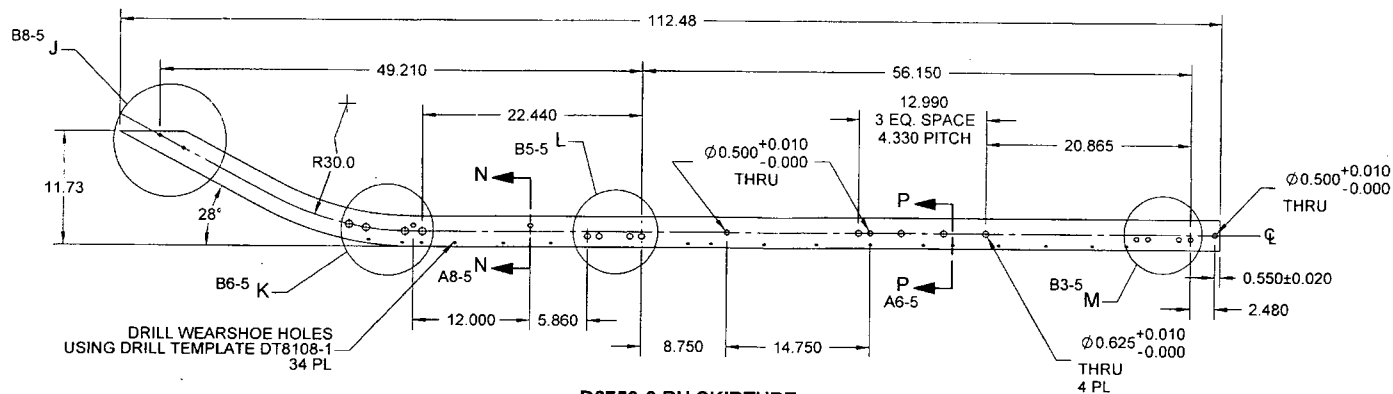


# **D2750-1 LH SKIDTUBE**

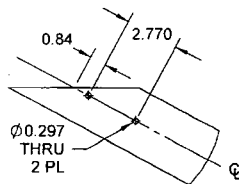


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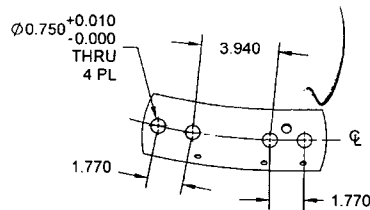
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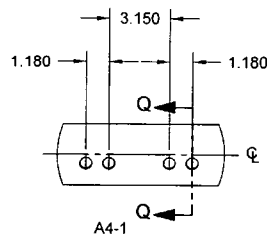
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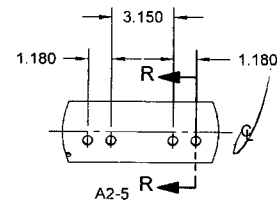
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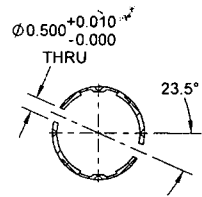
**DETAIL K**  
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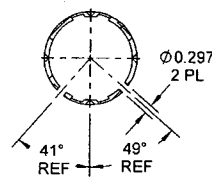
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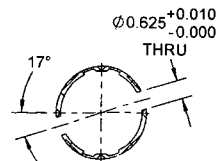
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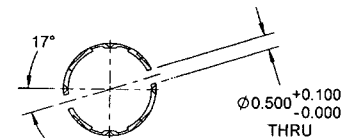
**SECTION N-N**  
SCALE 3X, 2 PL



**SECTION P-P**  
SCALE 3X, 17 PL



**SECTION Q-Q**  
SCALE 3X, 4 PL



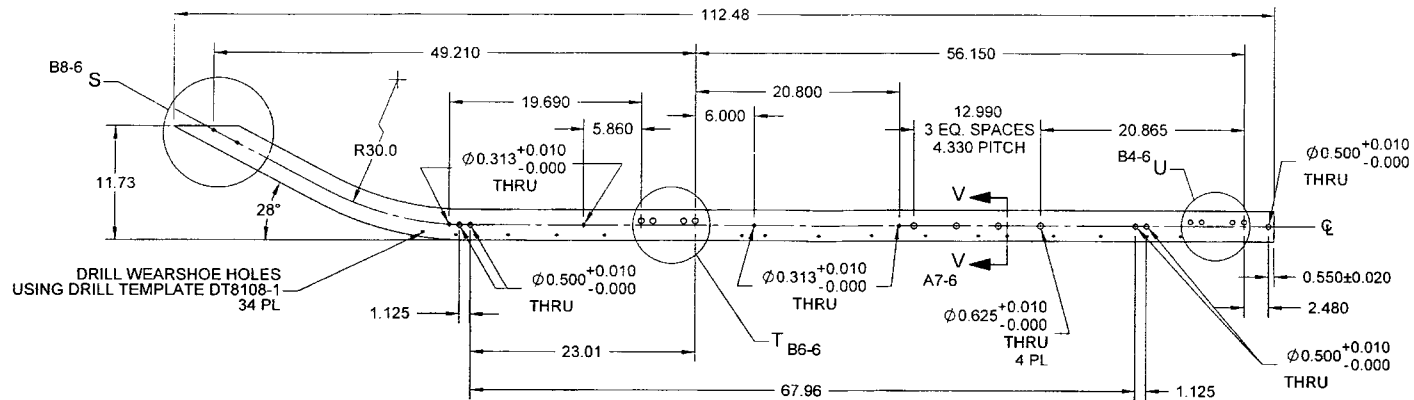
**SECTION R-R**  
SCALE 3X, 4 PL

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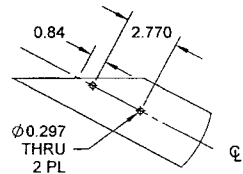
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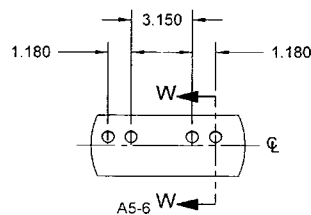
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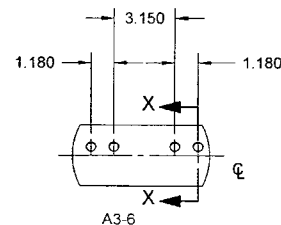
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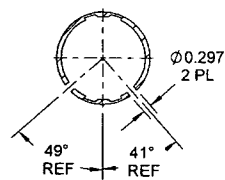
**DETAIL S**  
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D8-6



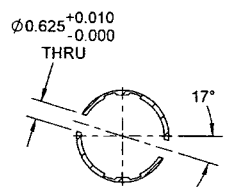
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C5-6



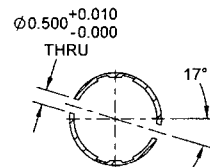
**DETAIL U**  
SCALE 2X  
D3-6



**SECTION V-V**  
SCALE 3X, 17 PL  
C4-6



**SECTION W-W**  
SCALE 3X, 4 PL  
B6-6

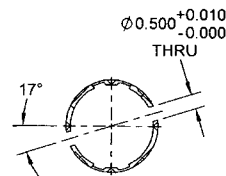
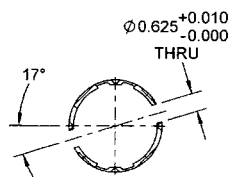
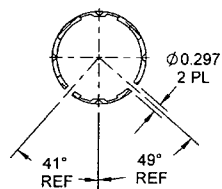
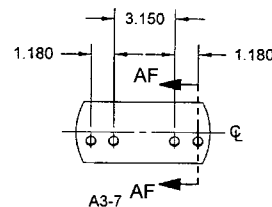
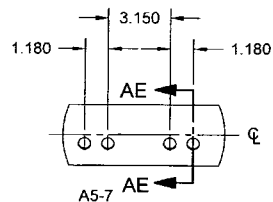
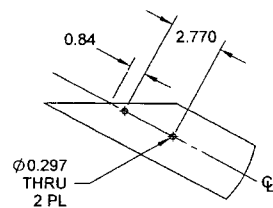
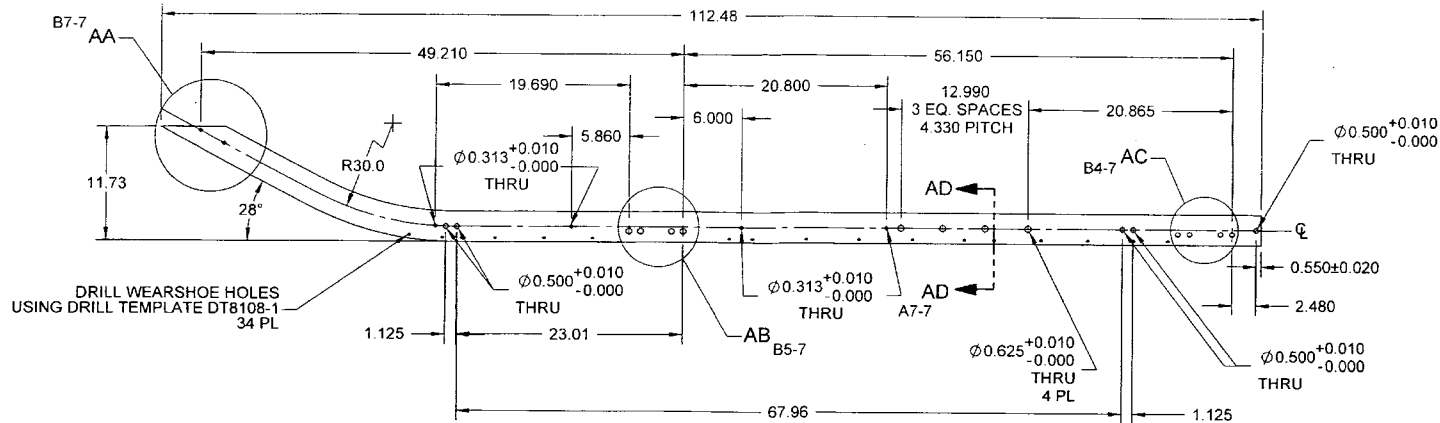


**SECTION X-X**  
SCALE 3X, 4 PL  
B4-6

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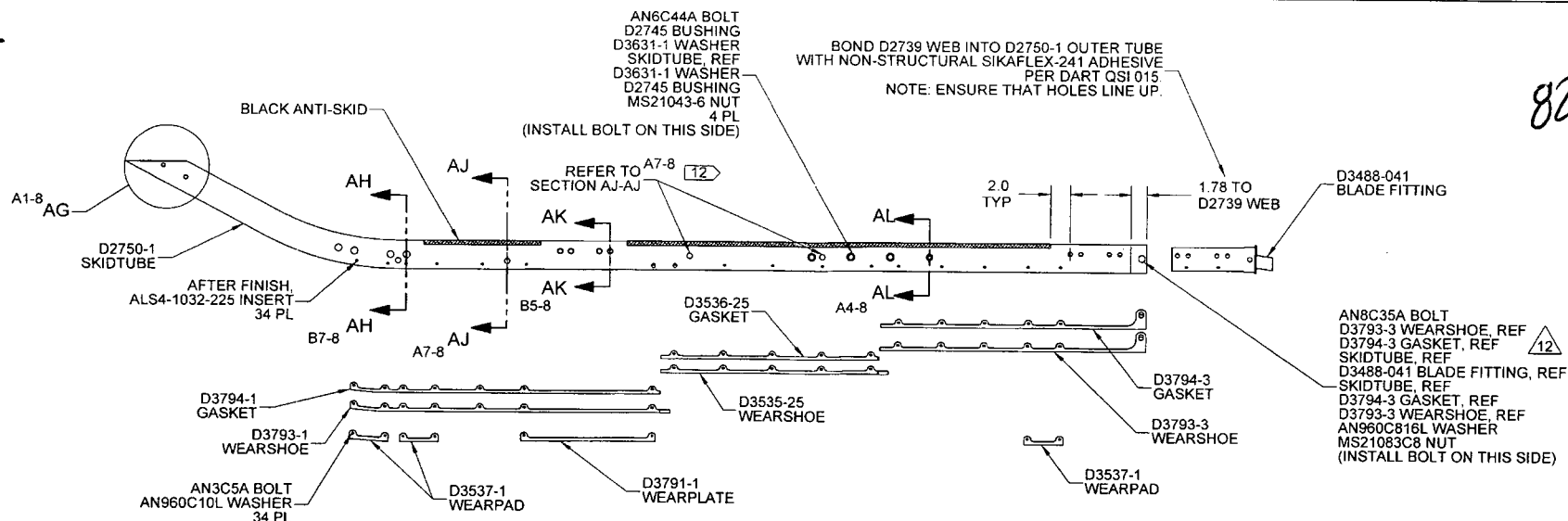
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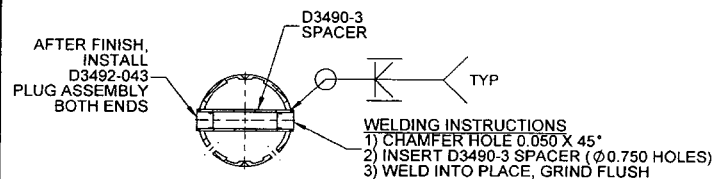
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MFG. APPR.	10/1/78	D2750	SHEET 7 OF 11
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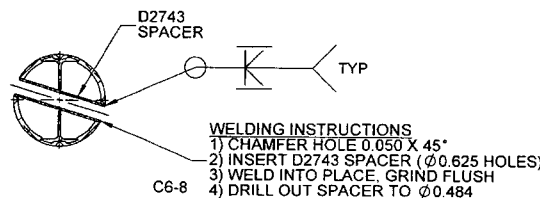
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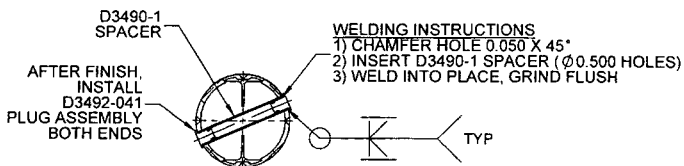
**D2750-041 350 SKIDTUBE ASSEMBLY, LH**



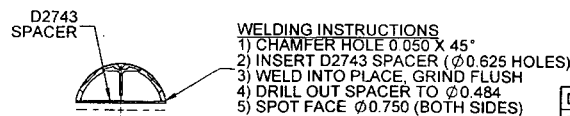
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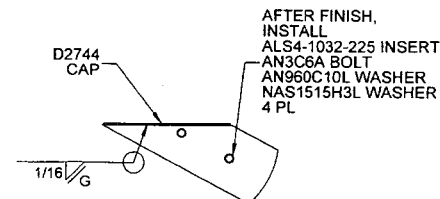
**SECTION AK-AK**  
SCALE 3X, 4 PL



**SECTION AJ-AJ**  
SCALE 3X, 4 PL



**SECTION AL-AL**  
SCALE 3X, 4 PL  
(HARDWARE REMOVED FOR CLARITY)



**DETAIL AG**  
SCALE 2X

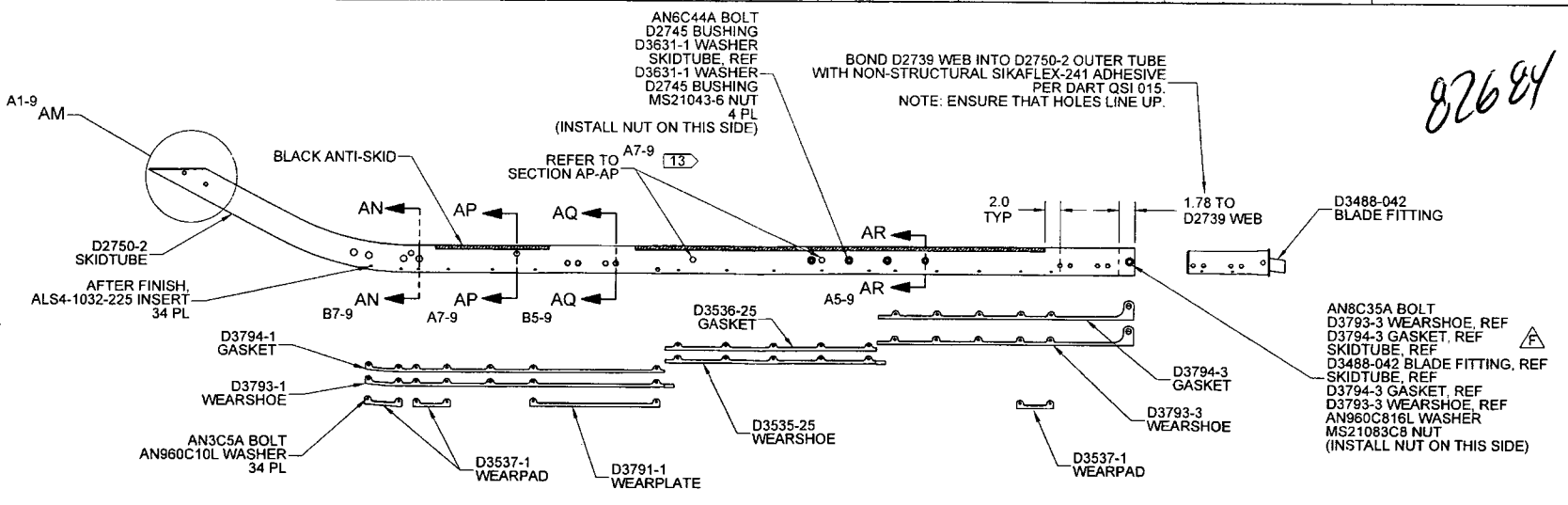
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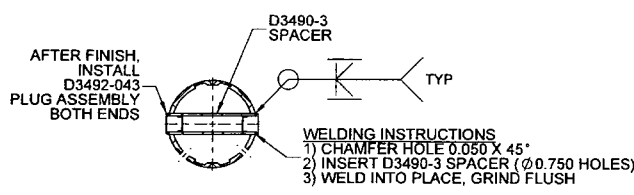


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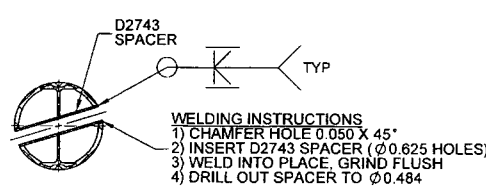
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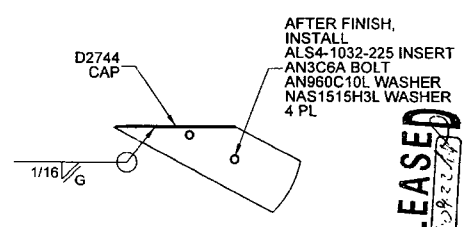
**D2750-042 350 SKIDTUBE ASSEMBLY, RH**



**SECTION AN-AN**  
SCALE 3X, 4 PL

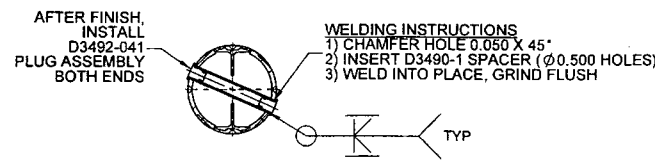


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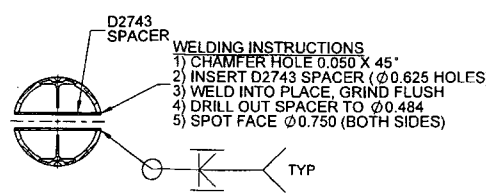


**DETAIL AM**  
SCALE 2X

RELEASED  
08-07-16



**SECTION AP-AP**  
SCALE 3X, 4 PL

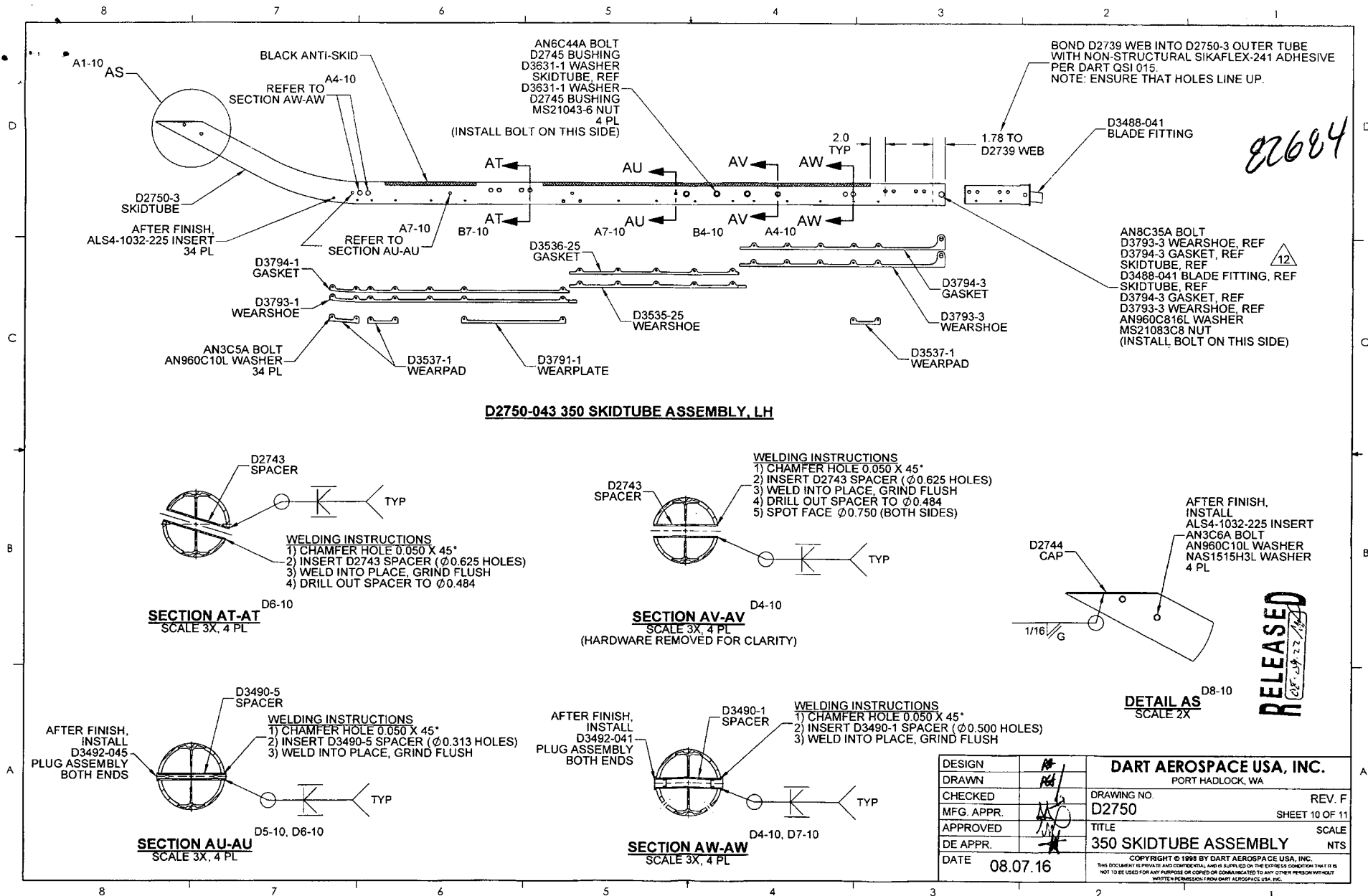


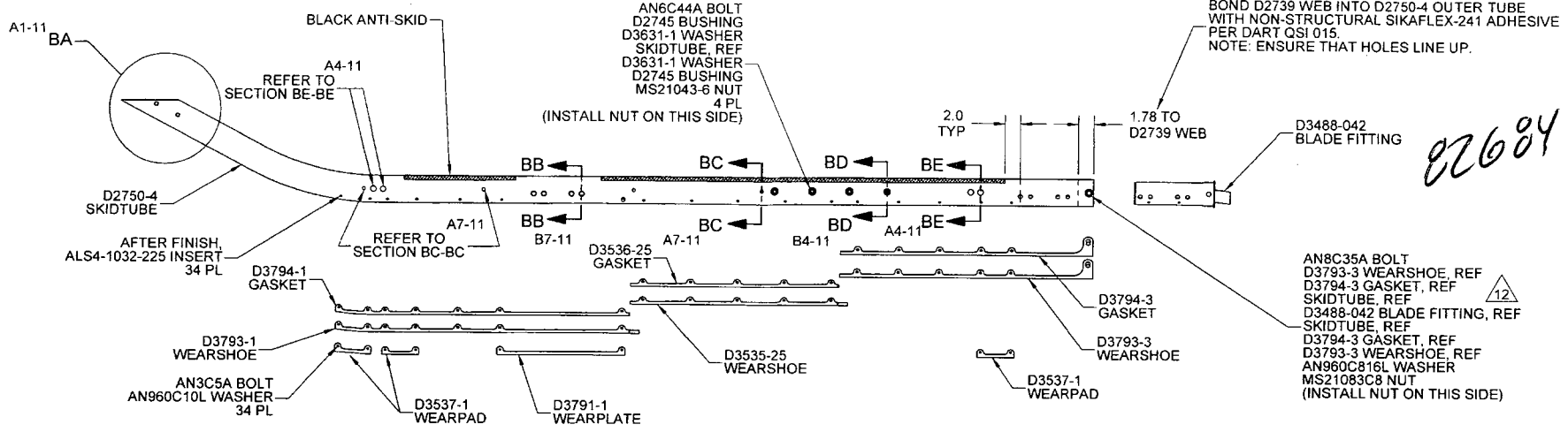
**SECTION AR-AR**  
SCALE 3X, 4 PL  
(HARDWARE REMOVED FOR CLARITY)

DESIGN	PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	REV. F SHEET 9 OF 11
DRAWN	PH		
CHECKED	PH		
MFG. APPR.	MD		
APPROVED	MD		
DE APPR.	MD	DRAWING NO. D2750	SCALE NTS
DATE	08.07.16	TITLE 350 SKIDTUBE ASSEMBLY	

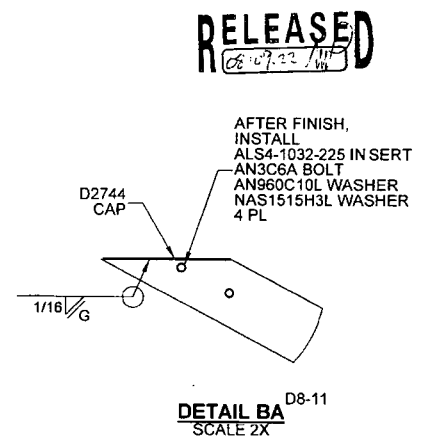
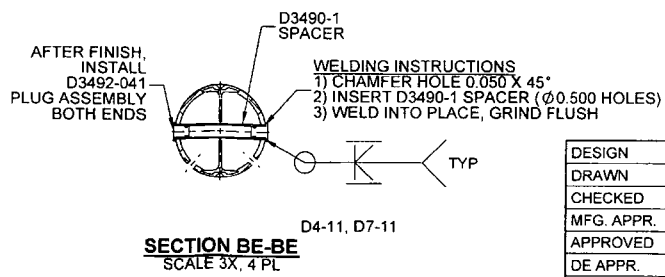
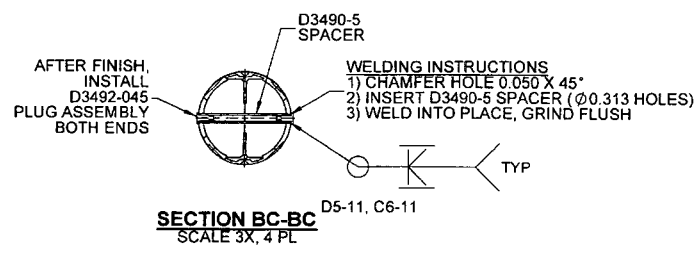
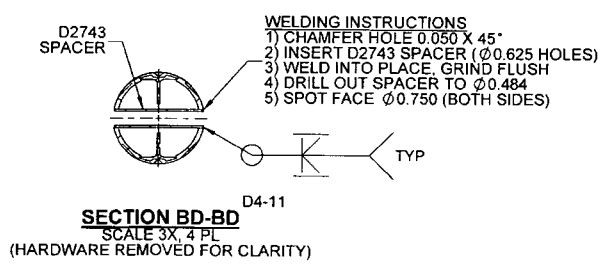
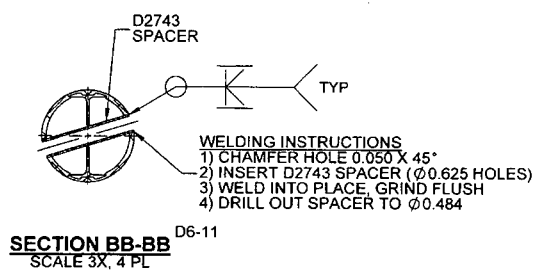
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8 7 6 5 4 3 2 1





**D2750-044 350 SKIDTUBE ASSEMBLY, RH**



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MFG. APPR.	PH	D2750	SHEET 11 OF 11
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1988 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	



NO. 289

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 81400  
Part number: A350-636-016  
Description: Shuttle  
Welding Process: Tig[☒] Mig[ ]  
Base material: Alum  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual:

pass[☒] fail[ ]

Penetration:

pass[☒] fail[ ]

UNACCEPTABLE

Cracks:

pass[☒] fail[ ]

Undercut:

pass[☒] fail[ ]

Pin holes:

pass[☒] fail[ ]

Overlap (cold lap)

pass[☒] fail[ ]

Porosity (surface):

pass[☒] fail[ ]

Coloration:

pass[☒] fail[ ]

Qualifier David Sewel Date of Test Coupon 12.04.17  
Welder Barclay Elliott Date of Test Coupon 12.04.17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld